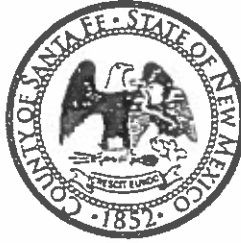


Henry P. Roybal
Commissioner, District 1

Miguel Chavez
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3



Kathy Holian
Commissioner, District 4

Liz Stefanics
Commissioner, District 5

Katherine Miller
County Manager

MEMORANDUM

DATE: August 10, 2015

TO: Board of County Commissioners

FROM: Adam Leigland, Public Works Department Director *AL 8/17/15*

VIA: Katherine Miller, County Manager *KM 8.17.15*

ITEM AND ISSUE: BCC Meeting August 25, 2015
Update on the Creation of New Water Rates (Public Works/Adam Leigland)

SUMMARY:

This is an update on the creation and implementation of new water rates.

BACKGROUND:

The County Utility was created as an enterprise fund, which is to say that its rate-based revenues should cover its costs. In an effort to rectify rates with the current water delivery landscape to meet the fiscal requirements of an enterprise activity, County staff has been conducting an internal water utility cost-of-service study.

The American Water Works Association Manual M1 *Principles of Water Rates, Fees and Charges* (AWWA M1) is the industry-standard source for water utility rate determination methodology. AWWA M1 specifies two different approaches for determining revenue needs and two different methods for allocating costs. County staff used the cash-needs approach, which is more appropriate for a public utility, and the commodity-demand method, which is more appropriate for a small utility (5000 customers or fewer; the County currently has about 3200 customers).

The commodity-demand method essentially divides costs into fixed costs, variable costs, and customer service costs. In designing rates using the commodity-demand method, there are five steps:

1. Determine policies and customer classes
2. Determine revenue requirements
3. Determine cost components
4. Allocate cost components to customer classes
5. Design rates

On June 30, 2015, the BCC approved Resolution No. 2015-87 *A Resolution Establishing Policies and Principles to Govern the Development of Santa Fe County Water Utility Rate Schedules* (attached), which was Step 1 in the above process. Since then, staff has conducted Steps 2 to 4, and now feels that as Step 5 is started, an update to the Commission is warranted.

DISCUSSION

After examining the customer classes of numerous other public water utilities in the state, staff created the following customer class schedule.

Table 1: Customer Classes

Class	Share of Total Customers	Share of Total Annual Water Use
Residential	97.53%	29.18%
Multifamily	0.00%	0.00%
Small Commercial	1.31%	20.02%
Large Commercial	0.94%	7.06%
Institutional	0.09%	12.17%
Wholesale Potable	0.09%	14.21%
Wholesale Raw	0.03%	17.35%
Total	100%	100%

Note that this customer class schedule eliminates the previous mutual domestic wholesale rate, which was so low that it produced negative cash flow. It also creates a multifamily rate; the County currently does not have any multifamily customers but expects to in the near future.

The next step in the process is to determine the revenues required to fully cover costs. As shown in Table 2 below, staff determined that to fully cover costs, the Water Utility needs to collect \$4.845M in revenue each year. Note that debt service is not listed in this amount. The full amount to service water system debt is \$3.42M per year; incorporating this into total Utility revenue requirements would essentially double the requirement.

Table 2: Revenue Requirements

	Revenue Item	Amount (\$)	Notes:
1	Water Supply	2,400,000	Assumes 17% BDD downtime and \$7.28/1000 gal City wholesale rate for back-up
2	Staff	1,300,000	
3	System O&M	715,000	
4	Reimburse General Fund	130,000	Transfer to GF to cover non-Utility costs such as Legal, HR, and Procurement
5	Reserves	300,000	OMR and emergency funds
6	Total	4,845,000	

This revenue requirement is significantly higher than the amount currently collected by the Utility under existing rates, currently \$3.9M per year; the increase that can be attributed to three factors:

1. Fully accounting for the cost of City-provided back-up water when BDD is down
2. Reimbursement of the General Fund
3. Populating the reserve funds.

Using the AWWA M1 methodology, staff then broke Utility costs into cost components (the AWWA M1 methodology also includes a line item for fire protection, but County fire protection costs are exceedingly low; they were rolled into customer costs), seen in Table 3 below. These cost components are then allocated to customer classes based on share of total customers and share of total water use. Note that the County's ratio of fixed to variable cost is fairly high, reflecting both the County's large investment in BDD and the lack of economies of scale that small utilities face. A larger, regional utility could overcome these factors.

Table 3: Cost Components

Cost Component	Amount (\$)	Share of Total
Demand (or fixed)	2,963,687	61.17%
Commodity (or variable)	1,423,460	29.38%
Customer	457,853	9.45%
Total	4,845,000	100%

The theory behind a cost-of-service study is to determine the incremental cost that each customer class imposes on the system in total. Each customer class should then generate enough revenue to cover its share of total costs. Indeed, this principle of customer-class equity is reflected in Resolution No. 2015-87 as Principle 1.C. Using the data shown in Tables 1 and 3, the amount of revenue that each customer class in the County Utility needs to produce to cover its cost share can be calculated; this is shown in Table 4 below. Also shown is the share currently generated (using January-June 2015 data).

Table 4: Cost Allocation

1 Customer Class	2 Current Share of Revenue	3 Calculated Share of Revenue
Residential	54.43%	35.27%
Multifamily	***	***
Commercial (Small & Large)	15.84%	31.47%
Institutional	9.50%	11.12%
Wholesale Potable	9.30%	12.99%
Wholesale Raw	10.93%	9.16%

The key takeaway from Table 4 is that currently, the residential customer class is paying a disproportionately large share of total system costs. This can be seen in comparing the percentages in column 2 with those in column 3. Fully implementing the customer-class equity principle will require a shifting of costs onto all other customer classes. Because the total revenue requirements of the utility are not currently fully supported, this does not mean that residential rates should be decreased, but rather that other customer classes need to carry more of the cost of delivering service.

Taking into account the greater revenue requirement identified in Table 2 above, the current residential rate schedule can be considered largely adequate as is. The rates for all other customer classes, however, will need to be increased. Customers that would be affected by this rate change include:

1. State Penitentiary
2. County Adult Detention Facility
3. Santa Fe Community College
4. Las Campanas Water Cooperative
5. Mutual Domestic

While the percentage changes in Table 4 may seem small, the actual dollar amounts involved can be large. For instance, the monetary impact to the Santa Fe County Adult Detention Facility could be as high as \$27,000 per year.

Resolution No. 2015-87 also includes the principle of geographic equity, wherein costs of service to specific customer service areas are equitably allocated. The cost-of-service study has revealed the need for zonal pricing surcharges for certain service areas that have significantly higher-than-average labor costs.

A rate increase for all customer classes is likely necessary in any case, but possible paths to reduce the amount or impact of the cost-share shift could include:

1. Eliminate line items 4 and/or 5 in Table 2 to reduce the total revenue requirement.
2. Subsidize the Utility with non-rate revenues.
3. Phase in the rate increase over time.

Staff is recommending that after the new rate schedule is developed, its implementation be delayed until July 2016. This will allow local government customers the time and opportunity to budget for increased water bills in the next budget cycle.

Another possible path is to reduce the cost of City-provided back-up water by either attempting to reduce the wholesale rate or to reduce BDD downtime. These are more complex and longer-term solutions.

ACTION REQUESTED:

None; for information only

SANTA FE COUNTY

RESOLUTION No. 2015- 87

A RESOLUTION ESTABLISHING POLICIES AND PRINCIPLES TO GOVERN THE DEVELOPMENT OF SANTA FE COUNTY WATER UTILITY RATE SCHEDULES

WHEREAS, water is a precious but scarce resource in the semi-arid and high desert climate of Santa Fe County, and will likely become even more so in the future; and

WHEREAS, Santa Fe County (the "County") operates a water utility ("Utility"); and

WHEREAS, under NMSA 1978, Section 4-36-10, the County is authorized to "purchase, own and operate sewer and water utilities and sell water and sewer utility service"; and

WHEREAS, Section 4-36-10 further provides that "in the operation of a sewer or water utility, the county shall set just and reasonable rates based on its cost of service";

WHEREAS, water rates should be designed to (a) recover sufficient revenue to sustainably provide efficient and reliable water service based on reasonable amounts of use, (b) be equitably distributed among different customer classes, (c) be simple to understand and administer, and (d) encourage conservation of water, discourage unreasonable amounts of use, and communicate water's true value through price signals; and

WHEREAS, Goal 40 of the County Sustainable Growth Management Plan (SGMP) provides that "Water conservation will be required to maintain a sustainable water supply and reduce County-wide per capita water consumption"; and

WHEREAS, SGMP Policy 42.12, among other things, calls for the equitable financing of water infrastructure; and

WHEREAS, the County Utility's service area is extensive and certain customer areas have demonstrably higher costs of service; and

WHEREAS, the County has various customers classes, including residential, industrial, and wholesale customers, each of which imposes different demands and related costs on the system; and

WHEREAS, back-up water supplies, especially those provided on a firm, on-demand basis, are more expensive than normal supplies; and

WHEREAS, the County develops, updates, and promulgates water utility rate schedules from time to time;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNTY BOARD OF COMMISSIONERS:

1. The following policies and principles shall be incorporated into the development of County water utility rate schedules.
 - A. Tiered Rate Structure. The County shall implement tiered rate structure to incentivize conservation and ensure that basic access to water is affordable.
 - B. Seasonality. A seasonal water supply pricing factor will be implemented.
 - C. Customer Class Equity. A rational set of customer classes will be developed to ensure that costs are equitably distributed.
 - D. Geographic Equity. The rate structure should equitably allocate costs to geographic areas with differing costs of service.
 - E. Back-up Supplies. The true costs of back-up water should be incorporated into the overall cost of water.
 - F. Automatic inflation-based changes. The new rate schedule shall include an automatic annual inflation-based price adjustment.
 - G. Regional Parity. Water rates shall be reflective of the region and shall not be excessively or unnecessarily divergent across political boundaries.
 - H. Financial Sustainability. When considering the revenue recovery requirements of the rate schedule, the costs of acquiring water rights and of capital asset replacement, renewal, improvement, and acquisition, including reserve funds, should be incorporated into the rates to the extent feasible.

PASSED, APPROVED, AND ADOPTED THIS 30th DAY OF June, 2015.
BOARD OF COUNTY COMMISSIONERS OF SANTA FE COUNTY

By: Miguel M. Chay
Robert Anaya, Chair

6/30/15
Date

ATTEST:

Geraldine Salazar
Geraldine Salazar, County Clerk

6-30-2015
Date

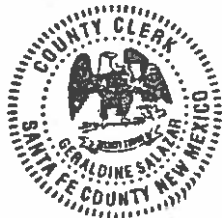


Approved as to form:

RSJL

Gregory S. Shaffer, County Attorney

6/15/2015
Date



COUNTY OF SANTA FE)
STATE OF NEW MEXICO) ss

RESOLUTION (N/C)
PAGES: 3

I Hereby Certify That This Instrument Was Filed for
Record On The 2ND Day Of July, 2015 at 10:13:16 AM
And Was Duly Recorded as Instrument # 1768647
Of The Records Of Santa Fe County

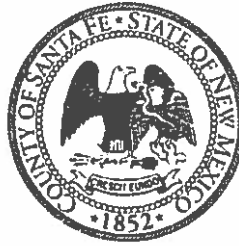
Witness My Hand And Seal Of Office
Geraldine Salazar
Deputy *Laura Hernandez* County Clerk, Santa Fe, NM

SFC CLERK RECORDED 07/02/2015

Henry P. Roybal
Commissioner, District 1

Miguel M. Chavez
Commissioner, District 2

Robert A. Anaya
Commissioner, District 3



Kathy Holian
Commissioner, District 4

Liz Stefanics
Commissioner, District 5

Katherine Miller
County Manager

MEMORANDUM

Date: *August 25, 2015*

To: Board of County Commissioners

From: Kathy Holian, Santa Fe County Commissioner, District 4

RE: **REDI Net Presentation of Current Open Access Middle Mile Broadband and Public Safety Activities in Northern New Mexico By Duncan Sill, REDI Net General Manager, North Central New Mexico Economic Development District, Martin Vigil, Fire Assistant Chief and Ken Martinez, RECC Director, Santa Fe County. (Commissioner Holian)**

Issue:

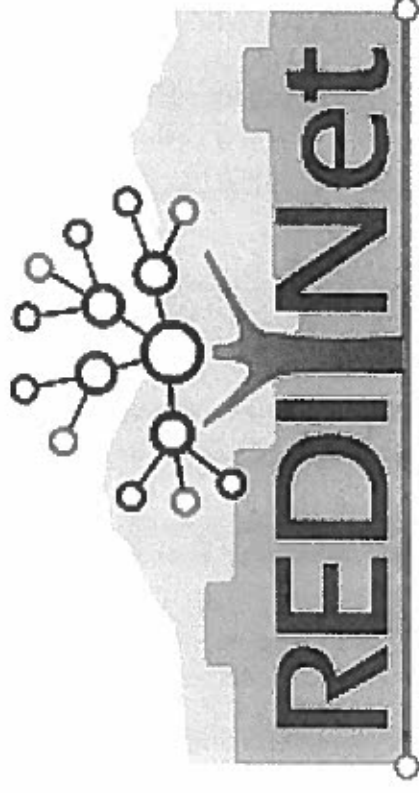
On the August 25th agenda, under Proclamations and Presentations:

A Presentation updating the Santa Fe County Board of County Commissioners on the Current Open Access Middle Mile Broadband and Public Safety Activities in Northern New Mexico.

- REDI Net, an open access high speed middle mile broadband network, which Santa Fe County is a local party to the Joint Powers Agreement, has been in operations since 2013 in northern New Mexico. Since the completion of the initial network development within Rio Arriba, Los Alamos and northern Santa Fe counties, numerous community anchor institutions (tribal and government services, educational entities, public safety, etc.) have been experiencing improved access and service to broadband within the network coverage area. Concurrently, several internet/broadband service providers are using the network to offer enhanced services to the public.
- In its early operational stage, REDI Net is currently working actively on assessing expansion in a broader region, enhancing network operational functions, building collaborative public and private partnerships to support and improve opportunities in education, healthcare, public safety and economic development.

Request Action:

This is an information agenda item only and no action is required.



Open Access Community Broadband Network

Northern New Mexico

GENERAL NETWORK INFORMATION UPDATE

SANTA FE COUNTY BOARD OF COUNTY COMMISSION

AUGUST 25, 2015

Community owned and operated

REDI Net is owned and operated by local and tribal governments through a Joint Powers Agreement (JPA).

- Board of Directors, with representation from each JPA entity, will jointly manage the network for 20 years
- Infrastructure is owned by the Pueblos and counties within their jurisdictions
- Each partner contributed cash or in-kind resources to obtain the grant
- All profits are reinvested in the network

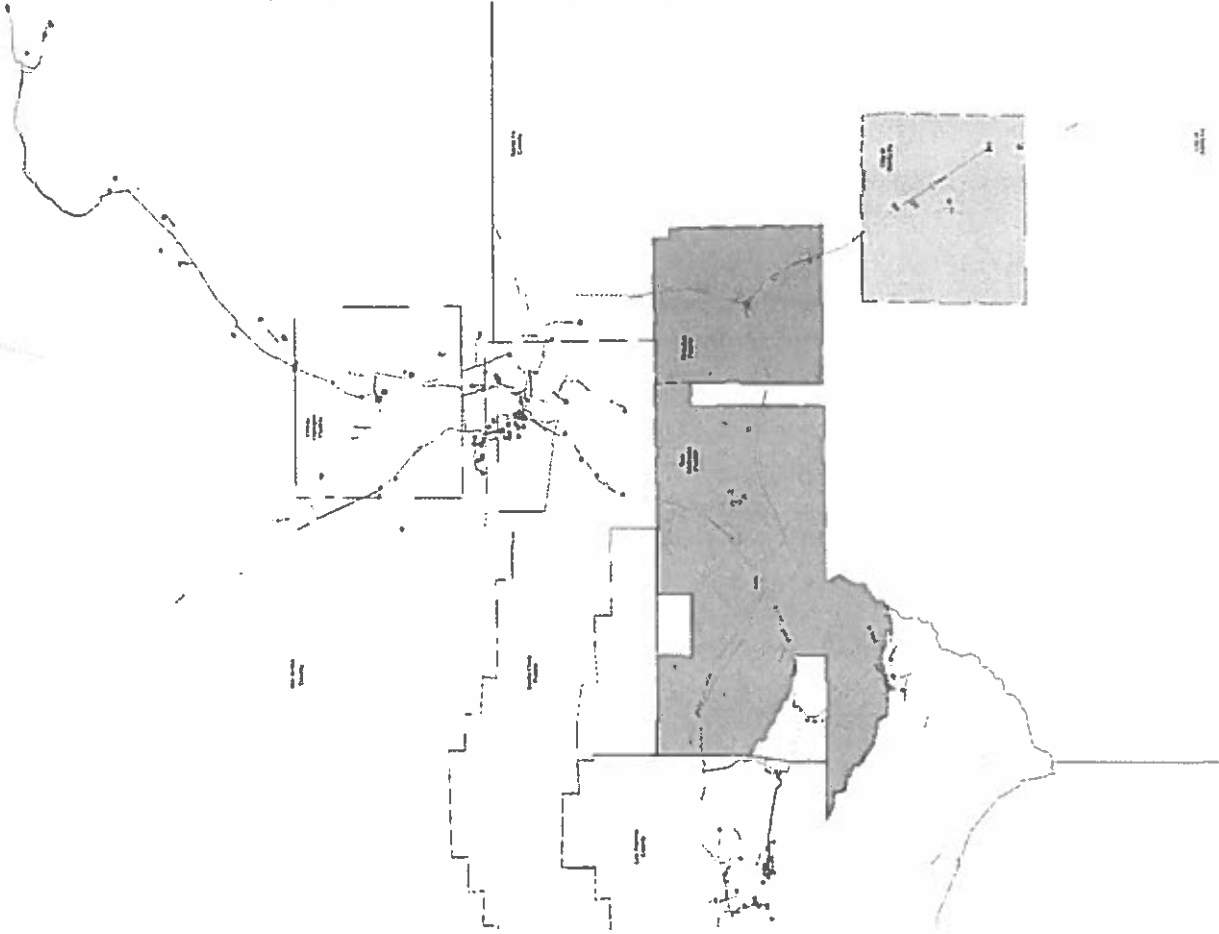
REDI NET

BOARD OF DIRECTORS

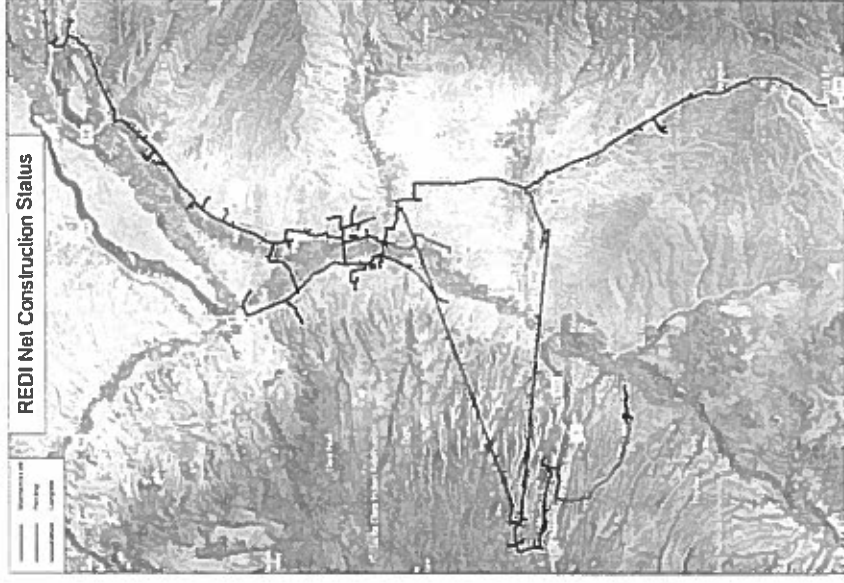
- City of Espanola
- Los Alamos County
- North Central NM Economic Dev. District (State)
- Pueblo of Ohkay Owingeh
- Pueblo of Pojoaque
- Pueblo of Santa Clara
- Pueblo of Tesuque
- Rio Arriba County
- Santa Fe County
- Pueblo of San Ildefonso
can opt in via JPA

Coverage area:

- ❖ Northern New Mexico
- ❖ Interconnects with Kit Carson Electric Coop
- ❖ 140+miles of fiber built
- ❖ Primarily traditional, tribal and rural communities
- ❖ Spans currently 4 local and 4 tribal governments geographic area
- ❖ National lab and urban areas



CURRENT status



- ☐ Initial network construction completed
- ☐ Network operational effective 2/1/13
- ☐ ~ 70 institutions active; 9 ISPs approved
- ☐ Developing asset management, network expansion and sector alignments—public safety, education, health care and economic development

High-speed broadband

REDI Net – metro Ethernet xGigabit network

Type of Service/ Connection	Rated Service/ Data Rate	E-mail w/ attachment (2MB)	X-ray Photo (8MB)	Instructional Video (600 MB)	DVD Movie (4.7GB)
Dial-Up	56 Kbps	7.11 min	28.43 min	1.48 days	11.6 days
DSL Lite	416 Kbps	50 sec	3.33 min	4.17 hours	1.63 days
DSL	2 Mbps	9.50 sec	38.01 sec	47.51 min	6.20 hours
Fiber	10 Mbps	2.13 sec	8.53 sec	10.67 min	1.39 hours
Fiber	100 Mbps	21 sec	.85 sec	1.07 min	8.36 min
Fiber	1 Gbps	.02 sec	.09 sec	6.40 sec	50.10 sec

CONNECTS INSTITUTIONS & PROVIDERS

Middle mile networks are like interstates that connect major cities and communities.

- Federal funding for REDI Net was limited to middle mile networks
- Middle mile networks connect and provide service to internet/broadband providers and community institutions

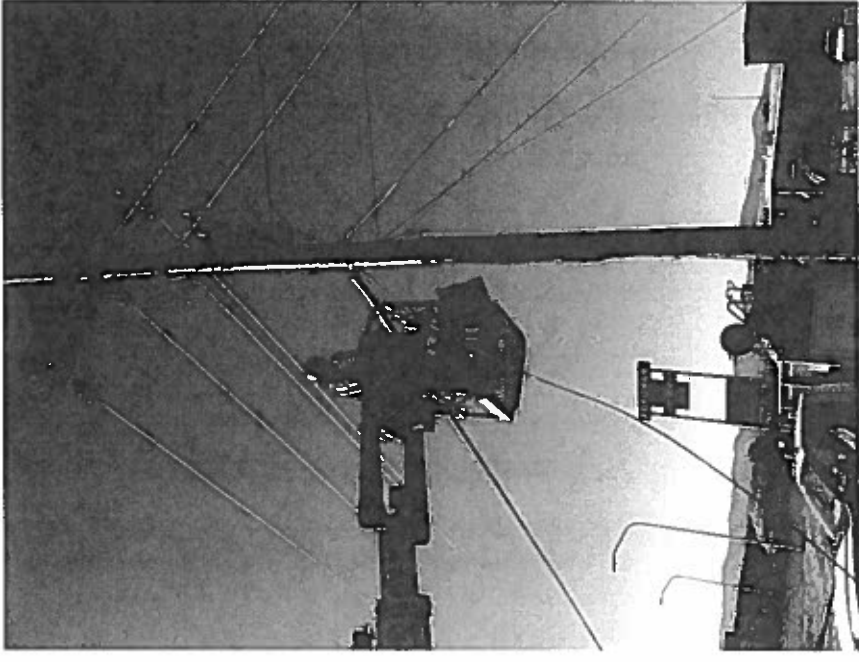
REDI NET CUSTOMERS (baseline)

- Internet or broadband providers that offer services to residential and commercial customers
- Community institutions that need large amounts of dedicated bandwidth (schools, hospitals, government offices, etc.)

CHOICE OF PROVIDERS for homes & businesses—open access

Any *qualified* internet or broadband provider can sell services on the REDI Net open access network.

- Increased competition results in lower costs and higher quality services
- REDI Net Board of Directors has adopted guidelines and an application for providers who want to sell their services on REDI Net



Community approach— operational stage

- ✓ **Education**
- ✓ **Economic Development**
- ✓ **Health Care**
- ✓ **Public Safety**
- ✓ **Water Resources Management**
- ✓ **Energy Development**
- ✓ **Technology Transfer**
- ✓ **Innovation**



Long term
sustainability

❖ Planning and
Assessment

❖ Asset
Management

❖ Partnerships

❖ Innovation



Santa Fe County Impact and Potential Activities

Public Safety

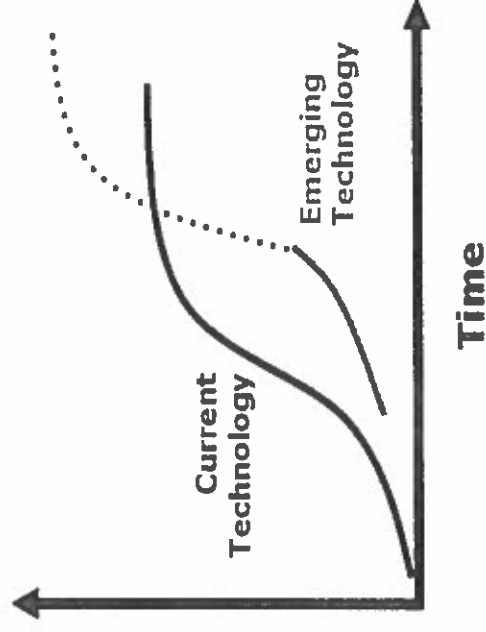
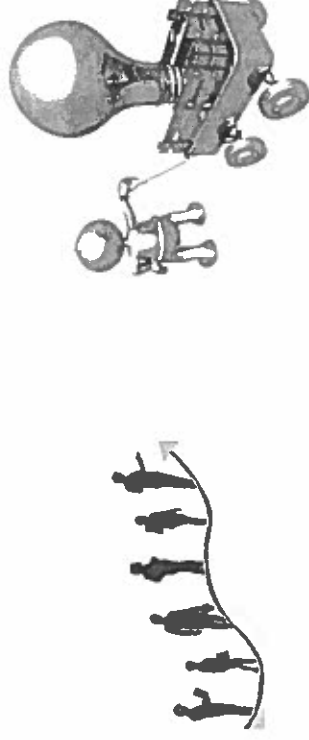
Economic & Workforce Development

Healthcare

Education

Infrastructure Integration—e.g. **Growth** Aamodt

Outreach



Education

Public Schools Facilities Authority (PSFA)

Broadband Deficiencies Correction Program (BDCP)

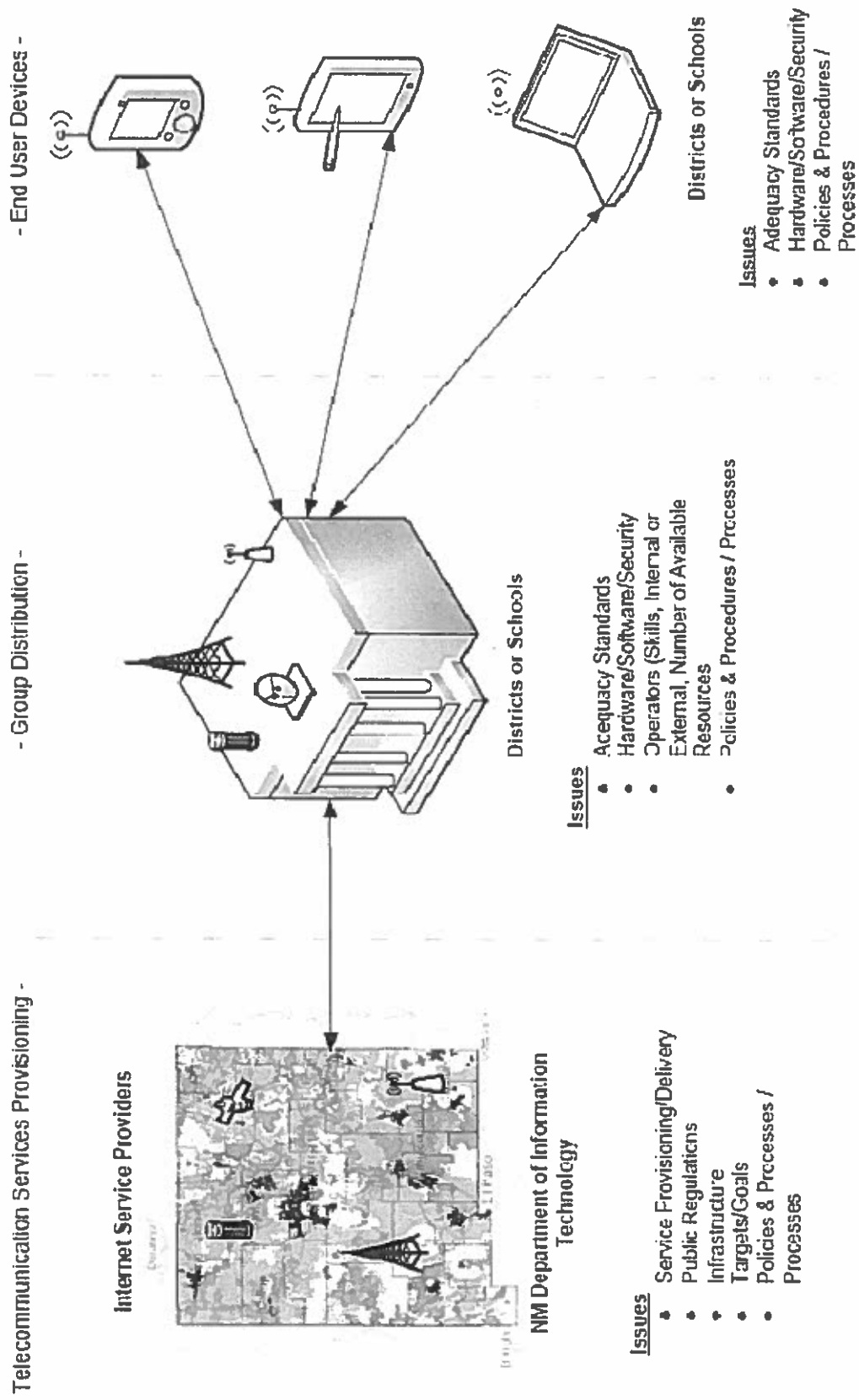
In the State of New Mexico, and across the nation, it has been recognized that there is insufficient broadband/bandwidth available to public schools, especially in rural areas. The New Mexico Broadband Deficiencies Correction Program (BDCP) was created to correct these deficiencies (SB159).

Broadband communications are **essential** in modern education

- To support online content, testing, and instruction (50% online expected in the near future)

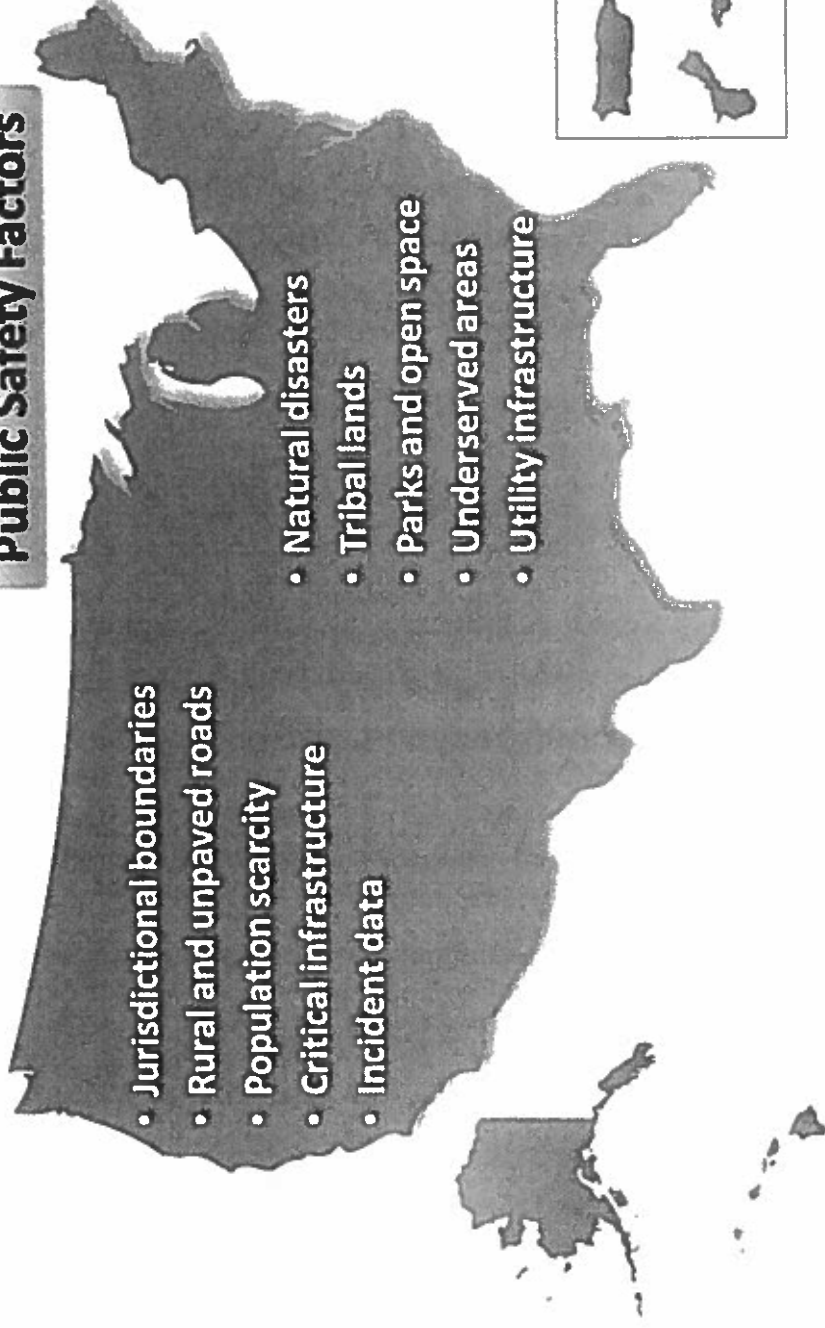
Many other States are ahead of New Mexico in their efforts to upgrade broadband, and create informative distribution models (Arkansas, Nebraska, Utah, Idaho, Mississippi, Pennsylvania...)

Education (cont'd)



Public Safety

Public Safety Factors



Source: firstnet.gov

Public Safety (cont'd)

The Frist Respondent Network Authority (FirstNet)

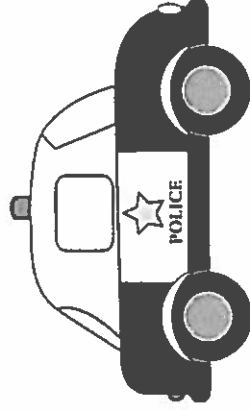
In February 2012, Congress enacted The Middle Class Tax Relief and Job Creation Act of 2012, containing landmark provisions to create a much-needed nationwide interoperable broadband network that will help police, firefighters, emergency medical service professionals and other public safety officials stay safe and do their jobs.

In 1997 Congress directed the Federal Communications Commission (FCC) to reallocate 24 MHz of spectrum at 700 MHz for public safety use.

As part of the regulatory process, the Commission has decided to establish Regional Planning Committees (RPCs) to enable local determination of frequency allotments, user priorities, and interference criteria based on local terrain.

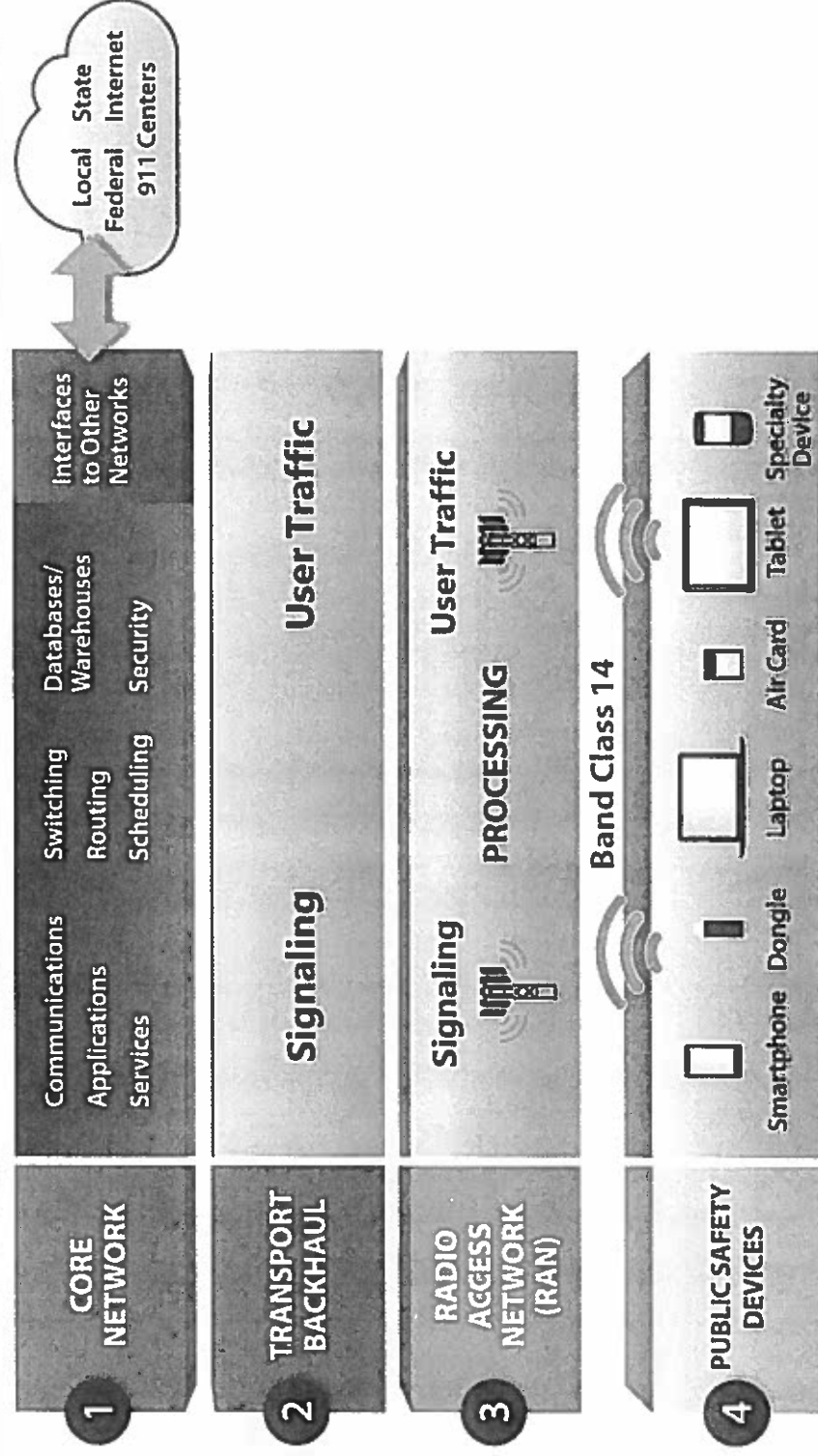


Public Safety—Local and Regional issues



- Two-way radio interoperability between field responders
- Backup capabilities for individual centers as well as between adjacent communications center jurisdictions
- Increased bandwidth for support of Next generation 911 needs
- Increased coverage for GPS/AVL field unit applications
- Increased coverage and bandwidth for MDB signal reception and transfer of communications data
- Possibilities for larger regional consolidation.

Public Safety – Network Example



Source: firstnet.gov

Public Safety (cont'd)

State Decision Process

FirstNet will collaborate with states to develop and deliver a RAN plan that meets their needs.

Consultation

- Regional Workshops
- State Visits
- Ongoing Dialogue

RFP Process

FirstNet
Presents
Plan to
Governor

State Decision 2 Options

90 days to decide
and notify FirstNet,
NTIA and the FCC

Opt Out

State seeks approval to
construct its own RAN

State Requirements:

- Submit alternate plan to FCC and gain FCC approval
- Complete an RFP
- May apply for grant funding from NTIA
- Must apply to NTIA to lease FirstNet spectrum
- State RAN must connect to the FirstNet Core
- State must pay user fees to FirstNet

Accept FirstNet Plan

FirstNet builds the RAN.

Source: firstnet.gov

Discussion & Questions

**FOR MORE INFORMATION,
CONTACT:**

Duncan Sill
General Manager
505-395-2676
duncans@redinetnm.org

Thank You!

www.redinetnm.org

